

## **2. Women's health Conditions:**

### **2.1. Childhood**

#### **2.1.1. Obesity**

Studies have shown that obese children often grow up to be obese adults. In fact, in the population of women with gestational diabetes (abnormal blood sugar during pregnancy) babies are often overly large and these large babies grow to be obese adults with greater risk of insulin resistance and diabetes themselves. The concern about obesity actually begins even before birth.

When childhood obesity continues into adulthood, it is a major risk factor for heart attacks, stroke, cancer, and diabetes. But even in childhood, being overweight can contribute to problems with the joints, sleep apnea, and asthma and especially type 2 diabetes, which is now seen much more commonly in childhood than in the past. Insulin resistance is worsened by obesity and contributes to the risk of diabetes, hypertension (high blood pressure), and polycystic ovary syndrome (see below). Children may also face serious psychological issues and problems with social interaction due to obesity.

#### **2.1.2. Thyroid Disorders**

Other endocrine disorders can be seen in young girls. In childhood, an underactive thyroid often becomes apparent with failure to grow normally. It can also cause fatigue, poor concentration and difficulty with learning, constipation, muscle pains or weakness, and intolerance to the cold. In girls, thyroid disease can cause failure to menstruate, early onset of menses, or irregular menses.

Congenital hypothyroidism is usually caused by improper development or actual absence of the gland. This is a very serious condition, which can lead to mental retardation. Most of babies in USA have a test for thyroid disease when they are born and parents are notifying immediately if there is a problem. . Unfortunately, that is an opposite of what is happened in Egypt. Prompt treatment with thyroid pills will allow perfectly normal growth and development.

Overactivity of the thyroid can cause weight loss, irritability and poor school performance, change in sleep habits, shakiness, muscle weakness, menstrual problems and palpitations. A goiter or enlargement of the thyroid may or may not be present when the thyroid does not work correctly. Since thyroid disease is often hereditary, children in families with a high frequency of thyroid disease should be checked with a simple blood test as should all children with any of the symptoms listed above. Also, keep in mind that thyroid malfunction is 5-10 times more likely in females than males.

### **2.1.3. Adrenal disease**

Adrenal hyperplasia refers to a series of conditions, which are genetic and lead to improper production of adrenal hormones. Usually, this is apparent at birth sometimes with abnormal development of the genital tissues. In some cases, the symptoms do not become apparent until adolescence. Endocrinologists are able to test for this condition and medical therapy is quite successful.

### **2.1.4. Pituitary problems**

Pituitary problems are rare in childhood and adolescence. Pituitary tumors and tumors called craniopharyngiomas, which grow near the pituitary gland, can affect growth, development, menstruation, and cause secondary failure of the thyroid and adrenal glands.

### **2.1.5. Growth retardation**

If a girl had been growing normally for her own pattern of growth and that growth slows, it is proper to search for a cause. This may include thyroid disease, pituitary problems, growth hormone deficiency, problems with the absorption of food from a variety of causes, or even a sign of a young onset of an eating disorder. Turner's syndrome and its variants may also be present with short stature, and it is important to find this disease since growth hormone therapy early in life can improve the final adult height.

## **2.2. Adolescence**

### **2.2.1. Turner's syndrome:**

Turner's syndrome is the most common condition, which causes a failure of development of normal ovaries, often in conjunction with other abnormalities of the skeletal system, kidneys and sometimes heart and aorta. It is caused by specific mutations or changes in the genetic material (DNA), which allows normal development of these structures. Girls with Turner's syndrome are not able to produce estrogen nor can they ovulate (produce eggs for procreation). Growth is often limited. It is important to identify girls with this condition as early in life as possible in order to make sure there are no associated health issues, as well as to assess the possible need for growth hormone treatment to optimize height potential. At the time of expected puberty, estrogen and progesterone must be added to provide menses and bone health. If a woman with Turner's syndrome is interested in fertility, the option of ovum donation exists.

### **2.2.2. Polycystic Ovarian Syndrome**

Polycystic ovarian syndrome is a condition, which results in abnormal function of the ovaries with irregular, infrequent ovulation, and menses frequently with the